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Maria Leite* (mleite@ou.edu), **Barbara Benitez-Gucciardi**, **Suzanne Lenhart** and **Libin Rong**. *HIV-1 Model with latently infected cells and optimal drug treatment strategy*. Preliminary report.

In treatment of HIV is a common medical practice the use of highly active antiretroviral therapy, known as HAART. This therapy is often administered in the form of drug cocktails consisting of a protease inhibitor (PIs) and at least one or more reverse transcriptase inhibitors (RTIs). The HAART drugs have been highly successful in suppressing HIV in many patients and are widely available in the United States and Western Europe. However, their cost constitutes a problem not only in the underdeveloped but also in developed nations, where accordingly to UNAIDS only 7% of the infected population has access to HAART. Another challenge associate with the use of HAART is its high toxicity. This facts highlight the importance of investigate further drug dosage strategy. We will discuss results on optimal schedule treatment approaches for HIV-1. (Received August 16, 2010)